

Timing relay, electronic with star-delta (wye-delta) function 2 NO 7  
time ranges 0.05 s...100 h 12-240 V AC/DC Screw terminal



Product brand name	SIRIUS
Product designation	timing relay
Design of the product	Star-delta (wye-delta) function
Product type designation	7PV15

General technical data	
Product component	
• semi-conductor output	No
Product extension required remote control	No
Product extension optional remote control	No
Power loss [W] total typical	2 W
Insulation voltage	
• for overvoltage category III according to IEC 60664	
— with degree of pollution 3 rated value	300 V
Test voltage for isolation test	2.2 kV
Degree of pollution	2
Surge voltage resistance rated value	4 000 V
Test voltage for surge voltage test	4 800 V
Protection class IP	IP20

<b>Shock resistance</b>	
• acc. to IEC 60068-2-27	11g / 15 ms
<b>Mechanical service life (switching cycles)</b>	
• typical	10 000 000
<b>Electrical endurance (switching cycles)</b>	
• at AC-15 at 230 V typical	100 000
<b>Adjustable time</b>	0.05 s ... 100 h
<b>Relative setting accuracy relating to full-scale value</b>	5 %
<b>Minimum ON period</b>	35 ms
<b>Recovery time</b>	500 ms
<b>Reference code acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750</b>	K
<b>Reference code acc. to DIN EN 81346-2</b>	K
<b>Reference code acc. to DIN EN 61346-2</b>	K
<b>Relative repeat accuracy</b>	2 %

#### Control circuit/ Control

<b>Type of voltage of the control supply voltage</b>	AC/DC
<b>Control supply voltage 1 at AC</b>	
• at 50 Hz	12 ... 240 V
• at 60 Hz	12 ... 240 V
<b>Control supply voltage frequency 1</b>	50 ... 60 Hz
<b>Control supply voltage 1</b>	
• at DC	12 ... 240 V
<b>Operating range factor control supply voltage rated value at DC</b>	
• initial value	0.85
• Full-scale value	1.1
<b>Operating range factor control supply voltage rated value at AC at 50 Hz</b>	
• initial value	0.85
• Full-scale value	1.1
<b>Operating range factor control supply voltage rated value at AC at 60 Hz</b>	
• initial value	0.85
• Full-scale value	1.1

#### Switching Function

<b>Switching function</b>	
• ON-delay	No
• ON-delay/instantaneous contact	No
• passing make contact	No
• passing make contact/instantaneous contact	No
• OFF delay	No

<b>Switching function</b>	
• flashing symmetrically starting with interval/instantaneous	No
• flashing symmetrically starting with interval	No
• flashing symmetrically starting with pulse/instantaneous	No
• flashing symmetrically starting with pulse	No
• flashing asymmetrically starting with interval	No
• flashing asymmetrically starting with pulse	No
<b>Switching function</b>	
• star-delta circuit with delay time	No
• star-delta circuit	Yes
<b>Switching function with control signal</b>	
• additive ON delay	No
• passing break contact	No
• passing break contact/instantaneous	No
• OFF delay	No
• OFF delay/instantaneous	No
• pulse delayed	No
• pulse delayed/instantaneous	No
• pulse-shaping	No
• pulse-shaping/instantaneous	No
• additive ON delay/instantaneous	No
• ON-delay/OFF-delay/instantaneous	No
• passing make contact	No
• passing make contact/instantaneous contact	No
<b>Switching function of interval relay with control signal</b>	
• retrotriggerable with deactivated control signal/instantaneous contact	No
• retrotriggerable with activated control signal	No
• retrotriggerable with activated control signal/instantaneous contact	No
• retriggerable with deactivated control signal	No
<b>Design of the control terminal non-floating</b>	
No	
<b>Short-circuit protection</b>	
<b>Design of the fuse link</b>	
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 4 A
<b>Auxiliary circuit</b>	
<b>Material of switching contacts</b>	
AgSnO2	
<b>Number of CO contacts</b>	
• delayed switching	0

<b>Operating current of auxiliary contacts at AC-15</b>	
• at 24 V	3 A
• at 250 V	3 A
<b>Operating current of auxiliary contacts at DC-13</b>	
• at 24 V	1 A
• at 125 V	0.22 A
• at 250 V	0.1 A
<b>Operating frequency with 3RT2 contactor maximum</b>	5 000 1/h
<b>Contact reliability of auxiliary contacts</b>	one incorrect switching operation of 100 million switching operations (17 V, 5 mA)
<b>Contact rating of auxiliary contacts according to UL</b>	R150 / B300
<b>Influence of the surrounding temperature</b>	2% in complete temperature range for the set duration
<b>Power supply influence</b>	2% in complete voltage range for the set duration
<b>Switching capacity current with inductive load</b>	0.01 ... 3 A

## Inputs/ Outputs

<b>Product function</b>	
• at the relay outputs Switchover delayed/without delay	No
• non-volatile	No

## Electromagnetic compatibility

<b>EMI immunity</b>	
• acc. to IEC 61812-1	EN 61000-6-2
<b>Conducted interference</b>	
• due to burst acc. to IEC 61000-4-4	2 kV network connection / 1 kV control connection
• due to conductor-earth surge acc. to IEC 61000-4-5	2 kV
• due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV
<b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>	10 V/m
<b>Electrostatic discharge acc. to IEC 61000-4-2</b>	4 kV contact discharge / 8 kV air discharge

## Safety related data

<b>Protection against electrical shock</b>	finger-safe
<b>Type of insulation</b>	Basic insulation
<b>Category acc. to EN 954-1</b>	none

## Connections/Terminals

<b>Product function</b>	
• removable terminal for auxiliary and control circuit	No
<b>Type of electrical connection</b>	
• for auxiliary and control current circuit	screw-type terminals
<b>Type of connectable conductor cross-sections</b>	
• solid	1x (0.2 ... 2.5 mm²)

<ul style="list-style-type: none"> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> <li>at AWG conductors solid</li> <li>at AWG conductors stranded</li> </ul>	1x (0.25 ... 1.5 mm <sup>2</sup> ) 1x (0.2 ... 1.5 mm <sup>2</sup> ) 1x (24 ... 14) 1x (24 ... 14)
<b>Connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>solid</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> </ul>	0.2 ... 2.5 m <sup>2</sup> 0.25 ... 1.5 m <sup>2</sup> 0.2 ... 1.5 m <sup>2</sup>
<b>AWG number as coded connectable conductor cross section</b> <ul style="list-style-type: none"> <li>solid</li> <li>stranded</li> </ul>	24 ... 14 24 ... 14

#### Installation/ mounting/ dimensions

<b>Mounting position</b>	any
<b>Mounting type</b>	snap-on fastening on 35 mm standard rail
<b>Height</b>	90 mm
<b>Width</b>	17.5 mm
<b>Depth</b>	66.7 mm
<b>Required spacing</b> <ul style="list-style-type: none"> <li>with side-by-side mounting <ul style="list-style-type: none"> <li>forwards</li> <li>Backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> </li> <li>for grounded parts <ul style="list-style-type: none"> <li>forwards</li> <li>Backwards</li> <li>upwards</li> <li>at the side</li> <li>downwards</li> </ul> </li> <li>for live parts <ul style="list-style-type: none"> <li>forwards</li> <li>Backwards</li> <li>upwards</li> <li>downwards</li> <li>at the side</li> </ul> </li> </ul>	0 mm 0 mm 0 mm 0 mm 0 mm  0 mm 0 mm 0 mm 0 mm 0 mm  0 mm 0 mm 0 mm 0 mm 0 mm

#### Ambient conditions

<b>Installation altitude at height above sea level</b> <ul style="list-style-type: none"> <li>maximum</li> </ul>	2 000 m
<b>Ambient temperature</b>	

- during operation
- during storage
- during transport

-25 ... +55 °C

-40 ... +70 °C

-40 ... +70 °C

#### Relative humidity

- during operation

15 ... 85 %

### Certificates/approvals

#### General Product Approval



CCC



UL



EG-Konf.

#### Declaration of Conformity

[Miscellaneous](#)

#### Test Certificates

[Type Test Certificates/Test Report](#)

#### other

[Confirmation](#)

### Further information

#### Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

#### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=7PV1578-1BW30>

#### Cax online generator

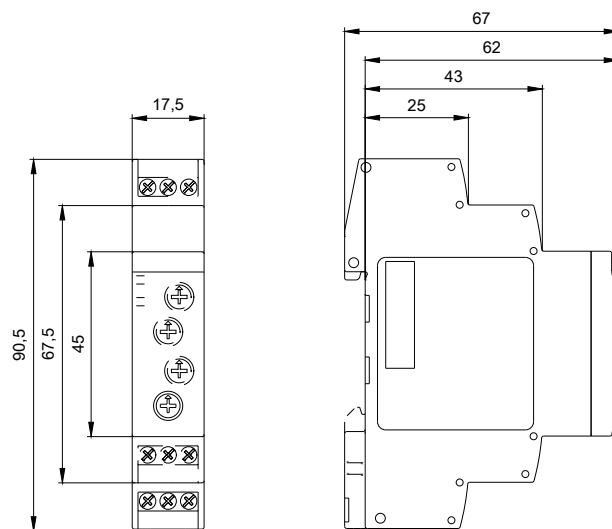
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=7PV1578-1BW30>

#### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/7PV1578-1BW30>

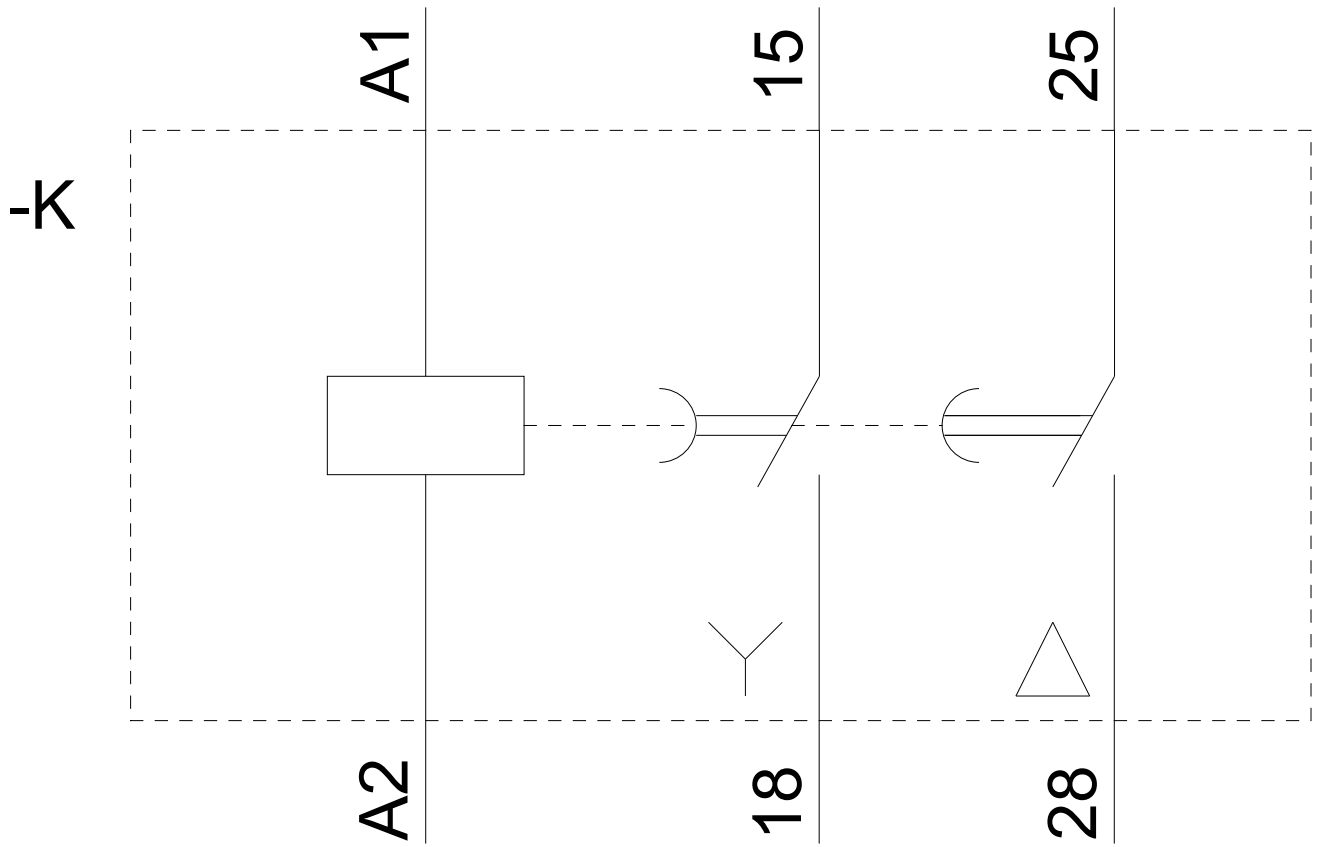
#### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=7PV1578-1BW30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=7PV1578-1BW30&lang=en)



Alle Bemessungswerte sind in Millimeter (mm) angegeben  
All dimensions are in millimeters (mm)





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02/21/2019